

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

Jung-kwon HEO

Serial No. 09/960,504

Group Art Unit: 3621

Confirmation No. 7211

Filed: September 24, 2001

Examiner: James A. Reagan

For: APPARATUS AND METHOD FOR TRANSCOPYING DATA

**SUPPLEMENTAL REPLY BRIEF UNDER 37 C.F.R § 41.41**

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Commissioner for Patents  
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Sir:

This is responsive to the Examiner's Supplemental Answer mailed December 9, 2008, and setting a due date for a Supplemental Reply Brief of February 9, 2009, and it a request to maintain the instant appeal and not reopen prosecution. This response is addressed only to those points newly raised in the Supplemental Examiner's Answer, and is intended to supplement the original arguments as to the claims as presented in the Appeal Brief filed October 30, 2006 and the Reply Brief filed March 13, 2007. Any claims not specifically addressed below rely upon these original arguments.

**I. Real Party in Interest**

The real party in interest remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(i).

**II. Related Appeals and Interferences**

The related appeals and interferences remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(ii).

**III. Status of Claims**

The status of the claims has been changed in the Supplemental Examiner's Answer such that claims 7 and 9 are newly rejected. As such, claims 1-7 and 9-46 are pending in this

application at the filing of the Appeal Brief. Claims 5 through 7, 9 and 34 through 42 stand finally rejected, and claims 1 through 4, 10 through 33, and 43 through 46 stand allowed. Of the rejected claims, claims 5, 7, and 34 are independent claims, and claims 6, 9 and 35 through 42 are dependent claims.

This Supplemental Reply Brief, in conjunction with the Appeal Brief, is an appeal of the finally rejected claims 5 through 7, 9, and 34 through 42.

#### **IV. Status of Amendments**

The status of the amendments remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(1)(iv).

#### **V. Summary of the Claimed Subject Matter**

The summary of the claimed subject matter remains as identified in the Appeal Brief pursuant to 37 C.F.R. §41.37(c)(v). However, in relation to newly rejected claim 7 and while not limited thereto, an example of the "method for transcoding data, the method comprising: confirming an original coding method applied to original content data" is shown in FIGs. 1, 3B, 5 and 6 and described in paragraphs 0017, 0018, 0024, 0031, and 0033, which describe in operation 62 confirming original content data 11, received at a transcoding unit 131 through a communications network or stored in a user computer, the coding method of the received original content data 11. The confirmation can be done by a content data provider 51 or the content data user 53 using an encoding method confirming unit 34 which analyzes a structure of the original content data 33 to determine the encoding method applied to the content data 33.

An example of "setting a different coding method than the original coding method" as recited in claim 7 is shown in FIGs. 1, 3A, and 6 and described in paragraphs 0023, 0030, and 0033, which describe in operation 63 setting a decoding method to be used in association with a content player 17 in order to reproduce a copy of the received original content data 11 (i.e., copied content data 15). The setting can be through analyzing the software or hardware of the content player 17 or by direct input to the transcoding unit 131 of the coding method.

An example of "converting the original content data to generate copied content data to be decoded by the different coding method" as recited in claim 7 is shown in FIGs. 1, 3A, 3B, and 6, and described in paragraphs 0025, 0026, and 0033, which describe in operation 65 generating copied content 15 by converting the coding method of the original content data 11 through transcoding, such as by decoding the original content data 11 using a decoding unit 35, which has various decoders 351, 352, 353 and selects the decoder corresponding to the

confirmed encoding method of the original content data 11, and encoding the decoded original content data 11 according to the set decoding method using an encoder unit 37, which has various encoders 371, 372, 373 and selected the encoder 371, 372, 33 corresponding to the set decoding method.

An example of "wherein said converting the original content data comprises recording information indicating that the original content data was transcopied into the copied content data is recorded in a rights management information area of the original content data, and recording information indicating that the copied content data was transcopied from the original content data in a rights management information area of the copied content data" as recited in claim 7 is shown in FIGs. 1, 2, 3B, and 6 and described in paragraphs 0021, 0027, and 0033, which describe in operation 66 the rights management information 155, 115 of the copied contents 15 being adjusted by the control unit for rights management information 39, 43 when transcopying involves transcopying from one encoding method to another encoding method. This information is recorded in both the original content 33 and the copied content 38.

#### VI. Grounds of Rejection to be Reviewed

As per 37 CFR 41.37(c)(1)(vi), the following is a concise statement of each ground of rejection on appeal.

1. Claims 5, 6, and 34-42 are rejected under 35 U.S.C. §101 as not being drawn to nonfunctional descriptive material; and
2. Claims 7 and 9 are rejected under 35 U.S.C. §101 as not meeting the machine or transformation test set forth in In re Bilski, 545 F3d 943; 88 USPQ2d 1385 (Fed. Cir. 2008).

#### VII. Argument

##### 1. Claims 7 and 9 are drawn to patentable subject matter

- A. There remains insufficient explanation of the basis for the rejection of claims 7 and 9 to maintain a prima facie rejection of claims 5 claims 7 and 9 under 35 U.S.C. §101

As noted in the Appeal Brief in relation to the rejection of the rejection of claims 5, 6, and 34-42, in order to reject a claim, there needs to be sufficient evidence and arguments of record in order to meet a prima facie burden as to put the applicant on notice of the reasons for the claim's deficiency. Such evidence is further required in order for meaningful review to be provided under the Administrative Procedures Act, 5 U.S.C. §706. Thus, as noted In re Oetiker, 977 F.2d 1443, 1445; 24 USPQ2d 1443, 1444 (Fed. Cir. 1992), "[t]he *prima facie* case is a procedural tool of patent examination, allocating the burdens of going forward as between examiner and applicant." Moreover, conclusory statements do not satisfy the need for evidence

of record needed to meet this prima facie burden. C.f., In re Zurko, 258 F.3d 1379, 1386; 59 USPQ2d 1693, 1697-98 (Fed. Cir. 2001) (unsupported assessment of prior art insufficient to substantiate obviousness rejection since, without concrete evidence, mere conclusions "render the process of appellate review for substantial evidence on the record a meaningless exercise.") As such, in the context of a prima facie rejection under 35 U.S.C. §101 for lack of statutory subject matter, there needs to be in the record evidence or reasoning beyond conclusory statements to substantiate the rejection.

- i. The conclusion that the method claims are not transformative of data, without analysis of the claims as recited, does not provide sufficient evidence for a prima facie rejection of claims 7 and 9 under 35 U.S.C. §101

On page 5 of the Supplemental Examiner's Answer, the Examiner sets forth the machine or transformation test set forth in In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008) (en banc), but does not provide an analysis as to how the claims do not meet the transformation test. Instead, the Examiner presents a legal conclusion that the claims "do not transform the underlying subject matter to a different state or thing" without reviewing the claim features. For instance, the Examiner has not provided an analysis as to how the recited feature in claim 7 of "converting the original content data to generate copied content data to be decoded by the different coding method" or "recording information indicating that the original content data was transcopied into the copied content data is recorded in a rights management information area of the original content data, and recording information indicating that the copied content data was transcopied from the original content data in a rights management information area of the copied content data" does not provide a transformation within the legal framework set forth the Federal Circuit. Since conversion invariably involves a transformation and recording invariably alters underlying data, applicants are entitled to an explanation as to how the recited conversion and transcopying method in claims 7 and 9 does not relate to a transformation within the meaning of In re Bilski.

Moreover, merely because the transformation is a change in data is not determinative. The Federal Circuit in In re Bilski specifically recognized that the "raw materials of many information-age processes ... are electronic signals and electronically-manipulated data." Id. at 1397. Thus, the Examiner's analysis fails to make a prima facie case for unpatentability under 35 U.S.C. §101 as there is no categorical exclusion for methods involving data manipulation and there is no further analysis beyond merely identifying the claims as a method. Indeed, in enacting 35 U.S.C. §273, Congress adopted an interpretation of what constitutes patentable

subject matter that is at least coextensive with the Federal Circuit's finding of patentable subject matter in 35 U.S.C. §101 in State St. Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1371 (Fed. Cir. 1998), and possibly broader. See Wayne P. Sobon and Erika H. Arner, *In re Bilski: 19<sup>th</sup> Century Thinking for 21<sup>st</sup> Century Challenges*, Landslide p. 17-21 (Vol. I, No. 3)(Jan./Feb. 2009)(ABA) (quoting 145 Cong. Rec, H11769-01, at 11801 (daily ed. Nov. 9, 1999)(Joint Conference Report) for proposition that 35 U.S.C. §273 was enacted to strike "an equitable balance between the interests of U.S. investors who have invented and commercialized business methods and processes, many of which until recently were thought not to be patentable, and U.S. and foreign inventors who later patent[ed] the methods and processes."); Alex Franco and Dan Altman, *United States: The First Inventor Defense Act of 1999*, Managing Intellectual Property IP Strategy Yearbook 2001 ("The House Conference Committee Report explains that the "defense is not limited to methods in any particular industry such as the financial services industry, but applies to any industry which relies on trade secrecy for protecting methods for doing or conducting the operations of their business" (see HR Conf Rep No 106-464, p 123)"). Thus, while the test has been modified by the Federal Circuit in In re Bilski, the underlying patentable subject matter remains at least coextensive with the invention found compliant with 35 U.S.C. §101 in State St. Bank as recognized by Congress in enacting 35 U.S.C. §273.

As there is no categorical exclusion for methods involving data manipulation and there is no evidence or an analysis in the record as to how the recited data conversion does not meet the transformation prong of the machine or transformation test set forth in In re Bilski, and since applicants need only be compliant with the transformation test for patentable subject matter to exist, the Examiner has not met the burden sufficient to maintain a prima facie rejection of the claims under 35 U.S.C. §101. Id. at 1396.

- ii. The conclusion that the method claims do not identify a machine in one limitation without analysis of the remaining claim features does not provide sufficient evidence for a prima facie prima facie rejection of claims 7 and 9 under 35 U.S.C. §101

On page 5 of the Supplemental Examiner's Answer, the Examiner states the machine or transformation test set forth in In re Bilski, 545 F3d 943; 88 USPQ2d 1385 (Fed. Cir. 2008) (en banc), but does not provide an analysis as to how the claims do not meet the machine test. Instead, the Examiner presents a legal conclusion that the claims "are not tied to a particular machine and can be performed without the use of a particular machine" without reviewing the claim features. At most, the Examiner has indicated that claim 7 does not expressly identify a

machine that performs "confirming an original coding method applied to original content data."

However, the Examiner has not provided an analysis relative to the entirety of the invention as recited in claim 7. For instance, claim 7 further recites "converting the original content data to generate copied content data to be decoded by the different coding method" and "recording information indicating that the original content data was transcribed into the copied content data is recorded in a rights management information area of the original content data, and recording information indicating that the copied content data was transcribed from the original content data in a rights management information area of the copied content data." There is no analysis as to how such conversion and confirmation is not performed on a machine, and unlike the situation in In re Bilski, there is no admission in the record of a "failure to meet the machine implementation part of the test." Id. at 1398. As such, unlike the situation in In re Bilski, there remains a requirement for evidence and analysis as to how the claims do not recite the use of a machine.

Moreover, consistent with the Federal Circuit's recent en banc correction to In re Comiskey, Civ. Case No. 2006-1286 (Fed. Cir. Jan. 13, 2009), the Federal Circuit stated that a method can be compliant with 35 U.S.C. §101 in situations where the complexity of the recited operations makes a "computer or equivalent device [wa]s a virtual necessity to perform the task." Id. at page 14 quoting with approval State St. Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1371 (Fed. Cir. 1998). Such a statement is consistent with 35 U.S.C. §273, which codified the Federal Circuit's decision as to the extent of patentable subject matter under 35 U.S.C. §101. See Wayne P. Sobon and Erika H. Arner, *In re Bilski: 19<sup>th</sup> Century Thinking for 21<sup>st</sup> Century Challenges*, *Landslide* p. 17-21 (quoting 145 Cong. Rec. H11769-01; Alex Franco and Dan Altman, *United States: The First Inventor Defense Act of 1999*, *Managing Intellectual Property IP Strategy Yearbook 2001* (quoting HR Conf Rep No 106-464, p 123). Further, in remanding for further consideration claims which depended from method claims not in compliance with 35 U.S.C. §101, the Federal Circuit noted that the claims "under the broadest reasonable interpretation recite the use of a machine" such that there needed to be consideration as to whether such features evidence compliance with 35 U.S.C. §101. Id. at page 24. As such, for purposes of establishing a prima facie rejection under 35 U.S.C. §101 for failure to meet the machine test of the machine or transformation test set forth in In re Bilski, the Examiner needs to provide evidence of a reasonable interpretation, and this interpretation must comport with the reality of the invention as recited in order to determine whether the claim renders the use of an apparatus a necessity. C.f. In re

Morris, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (in interpreting a claim, the Examiner is to broadly interpret the claim, but must do so within the bounds of reason), In re Cortright, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999) (while the Examiner is to avoid reading limitations from the specification into the claims, the Examiner should not interpret claim limitations so broadly as to contradict or otherwise render a limitation meaningless as would be understood by those of ordinary skill in the art).

However, as the Examiner has not provided such analysis or evidence as to how one of ordinary skill in the art using the specification would understand the recited invention, the Examiner has not provided evidence as to the reasonableness of the interpretation used by the Examiner in determining claims 7 and 9, as would be understood by one of ordinary skill in the art in light of the specification, is not tied to or used by a machine. Without such analysis and without an admission that the claims are not tied to a machine, the Examiner has not met the burden sufficient to maintain a prima facie rejection of the claims under 35 U.S.C. §101.

B. Claims 7 and 9 recite a method which is transformed and is compliant with 35 U.S.C. §101

On page 5 of the Supplemental Examiner's Answer, the Examiner asserts that claims 7 and 9 do not recite a method which transforms data within the scope of 35 U.S.C. §101, but does not review the claims as recited in determining whether a transformation was performed for purposes of 35 U.S.C. §101. As set forth in In re Bilski, a method is patentable and does not preempt all uses of an algorithm if it "transforms a particular article into a different state or thing." In re Bilski, 88 U.S.P.Q.2d at 1391. Moreover, as acknowledged by the Federal Circuit, the "raw materials of many information-age processes, however, are electronic signals and electronically-manipulated data" and such raw material can be transformed for purposes of the meeting the test for patent-eligible subject matter under 35 U.S.C. §101. Id. at 1397. The dividing line as to whether such transformation occurs is thus where the transformation results in a different item, such as a visual depiction of raw data, but not whether the underlying raw data is manipulated. Id.

Consistent with this definition, claim 7 recites "converting the original content data to generate copied content data to be decoded by the different coding method." Further, claim 7 recites "recording information indicating that the original content data was transcopied into the copied content data is recorded in a rights management information area of the original content data," and "recording information indicating that the copied content data was transcopied from the original content data in a rights management information area of the copied content data." As such, claim 7 does not preempt all transcopying algorithms since the underlying data is first

converted from original content data encoded according to a first method to a copied content data encoded by a second method, thereby applying a specific application to the transcopying. Thus, the original content data was transformed in the process and the underlying raw material was transformed consistent with the definition set forth in In re Bilski.

Moreover, both the copied content data and the original content data are again transformed by inserting specific data into specific areas of the content data. Both the original content data and the copied content data are each transformed through such recordation. As such, the raw material in claim 7, as well as the transformed raw data, are further modified in a physical manner consistent with the definition set forth in In re Bilski.

In summary, claim 7 does not preempt all potential transcopying of original content data and, consistent with the physical transformation in In re Abele, 214 USPQ 682 (CCPA 1982), both produces new data and transforms the original and new data to reflect the transformation. As such, it is respectfully submitted that claim 7 recites multiple transformations and physical changes consistent with the transformation test set forth in In re Bilski.

For at least similar reasons, claim 9 is consistent with the transformation test set forth in In re Bilski and is compliant with 35 U.S.C. §101.

C. Claims 7 and 9 recite a method which is tied to a specific machine and is compliant with 35 U.S.C. §101

On page 5 of the Supplemental Examiner's Answer, the Examiner asserts that an operation of confirming is not related to an identified machine. However, it is noted that claims can necessarily implicate and be tied to a machine under their broadest reasonable interpretation without specifically and obviously reciting a machine. Indeed, the Federal Circuit noted that mere insignificant recital of a machine performing insignificant processing will not convert unpatentable subject matter into patentable subject matter. Id. at 1396. As such, the inquiry into whether a method claim is tied to a machine is not purely based upon pro forma uses of words such as "machine" or "apparatus," but instead upon whether the significant elements of the processing being performed by the recited invention is necessarily performed by a machine.

For purposes of claim construction given its "broadest reasonable interpretation" standard, the Federal Circuit requires that "The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.' In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004)." Phillips v. AWH Corp.,



75 USPQ2d 1321, 1329 (Fed. Cir. 2005) (en banc) quoted by Manuel of Patent Examining Procedure § 2111 (Eighth Edition, August 2001)(Latest Revision July 2008). As such, in determining the scope of the recited method, an analysis of one of ordinary skill in the art is an absolute requirement.

In regards to evidence as to how one of ordinary skill in the art would understand the claims, it is first noted that the Examiner performed a search to determine the patentability of claims 7 and 9. The search resulted in citation of U.S. Patent Nos. 5,293,422; 6,343,283; 6,668,324; 6,324,650; 6,449,717; 6,615,192; 6,728,379; 6,738,906; 5,796,839; 5,444,779; 5,504,816; 6,198,875; and 6,236,727. A cursory review of these search results indicate that only machines and methods performed using the machines were of particular relevance to the recited method in claims 7 and 9. Since no art was revealed in which method were not tied to machines in performing methods at least related to the recited invention, this result is an indication that one of ordinary skill in the art, in reviewing the claims, would presume that the recited method is integrally tied to a machine consistent with the machine test of In re Bilski. See Manuel of Patent Examining Procedure § 904.02 ("The search should cover the claimed subject matter and should also cover the disclosed features which might reasonably be expected to be claimed.") Thus, the only evidence of the interpretation of the claims by one of ordinary skill in the art, outside of the specification, is that provided by the Examiner and indicates that the broadest reasonable interpretation of the method recited in claims 7 and 9 has the claims tied to a particular machine.

Moreover, when viewed in light of the specification, it is noted that no examples are provided in which a machine is not performing the operations of claims 7 and 9. By way of review, claim 7 recites, among other features, "confirming an original coding method applied to original content data," "setting a different coding method than the original coding method", "converting the original content data to generate copied content data to be decoded by the different coding method," "recording information indicating that the original content data was transcopied into the copied content data is recorded in a rights management information area of the original content data" and "recording information indicating that the copied content data was transcopied from the original content data in a rights management information area of the copied content data." The specification does not admit that the method is performed without a machine, and as set forth above in paragraph 0017 and in the Summary of the Claimed Subject Matter accompanying the Supplemental Reply Brief, the only examples provided include the transcopying method being performed in a server or a computer and in association with encoder

and decoder units and a control unit. As such, while other types of machines could be used, one of ordinary skill in the art in view of the specification would reach the same conclusion as the Examiner did in searching for prior art to apply against claims 7 and 9: the method necessarily recites a machine performing the recited method. Therefore, the evidence demonstrates that the broadest reasonable interpretation of the claimed invention, when taken in view of the specification and understood by one ordinary skill in the art, demonstrates that claims 7 and 9 are tied to a particular machine. As such, claims 7 and 9 also meet the machine test of In re Bilski, and are therefore patentable subject matter under 35 U.S.C. §101.

#### **VIII. Conclusion**

In view of the law and facts stated herein, the Appellant respectfully submits that the rejected claims remain statutory subject matter under 35 U.S.C. §101 and that the Examiner has failed to rebut the arguments in either the Reply Brief, the Appeal Brief, the Amendment After Final Rejection filed June 2, 2006, or the Amendment filed December 19, 2005.

The Commissioner is hereby authorized to charge any additional fees required in connection with the filing of the Reply Brief to our Deposit Account No. 50-3333.

Respectfully submitted,

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